

SEQUENCE LISTING

<110> DAVID M. KOELLE
ZHI LIU
LAWRENCE COREY

<120> RAPID, EFFICIENT PURIFICATION OF
HSV-SPECIFIC T-LYMPHOCYTES AND HSV ANTIGENS IDENTIFIED VIA
SAME

<130> 30967.11USU1

<150> 60/396,791

<151> 2002-07-18

<160> 17

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 9

<212> PRT

<213> Herpes Simplex Virus 2

<400> 1

Asp Arg Leu Asp Asn Arg Leu Gln Leu

1

5

<210> 2

<211> 9

<212> PRT

<213> Herpes Simplex Virus 2

<400> 2

Gly Pro His Glu Thr Ile Thr Ala Leu

1

5

<210> 3

<211> 13

<212> PRT

<213> Herpes Simplex Virus 2

<400> 3

His Ala Ser Pro Phe Glu Arg Val Arg Cys Leu Leu Leu

1

5

10

<210> 4

<211> 9

<212> PRT

<213> Herpes Simplex Virus 2

<400> 4

Ala Ser Asp Ser Leu Asn Asn Glu Tyr

1

5

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<212> PRT

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Arg Arg Ala Gln Met Ala Pro Lys Arg

1

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<213> Herpes Simplex 2

<400> 6

Lys Ser Arg Arg Pro Leu Thr Thr Phe

1

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<210> 7

<211> 296

<212> PRT

<213> Herpes Simplex Virus 2

<400> 7

Met Ala Asp Pro Thr Pro Ala Asp Glu Gly Thr Ala Ala Ala Ile Leu

1

5

10

15

Lys Gln Ala Ile Ala Gly Asp Arg Ser Leu Val Glu Val Ala Glu Gly

20

25

30

Ile Ser Asn Gln Ala Leu Leu Arg Met Ala Cys Glu Val Arg Gln Val

35

40

45

Ser Asp Arg Gln Pro Arg Phe Thr Ala Thr Ser Val Leu Arg Val Asp

50

55

60

Val Thr Pro Arg Gly Arg Leu Arg Phe Val Leu Asp Gly Ser Ser Asp

65

70

75

80

Asp Ala Tyr Val Ala Ser Glu Asp Tyr Phe Lys Arg Cys Gly Asp Gln

85

90

95

Pro Thr Tyr Arg Gly Phe Ala Val Val Leu Thr Ala Asn Glu Asp

100

105

110

His Val His Ser Leu Ala Val Pro Leu Val Leu Leu His Arg Leu

115

120

125

Ser Leu Phe Arg Pro Thr Asp Leu Arg Asp Phe Glu Leu Val Cys Leu

130

135

140

Leu Met Tyr Leu Glu Asn Cys Pro Arg Ser His Ala Thr Pro Ser Leu

145

150

155

160

Phe Val Lys Val Ser Ala Trp Leu Gly Val Val Ala Arg His Ala Ser

165

170

175

Pro Phe Glu Arg Val Arg Cys Leu Leu Arg Ser Cys His Trp Ile

180

185

190

Leu Asn Thr Leu Met Cys Met Ala Gly Val Lys Pro Phe Asp Asp Glu

195

200

205

Leu Val Leu Pro His Trp Tyr Met Ala His Tyr Leu Leu Ala Asn Asn

210

215

220

Pro Pro Pro Val Leu Ser Ala Leu Phe Cys Ala Thr Pro Gln Ser Ser

225

230

235

240

Ala Leu Gln Leu Pro Gly Pro Val Pro Arg Thr Asp Cys Val Ala Tyr

245

250

255

Asn Pro Ala Gly Val Met Gly Ser Cys Trp Asn Ser Lys Asp Leu Arg

260

265

270

Ser Ala Leu Val Tyr Trp Trp Leu Ser Gly Ser Pro Lys Arg Arg Thr

275

280

285

Ser Ser Leu Phe Tyr Arg Phe Cys

290

295

<210> 8

<211> 585

<212> PRT

<213> Herpes Simplex Virus 2

<400> 8

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			20					25					30		
Arg	Asp	Phe	Trp	Met	Leu	Pro	Val	Phe	Asn	Ile	Pro	Arg	Glu	Thr	Ala
		35					40					45			
Ala	Glu	Arg	Ala	Ala	Val	Leu	Gln	Ala	Gln	Arg	Thr	Ala	Ala	Ala	Ala
	50					55					60				
Ala	Leu	Glu	Asn	Ala	Ala	Leu	Gln	Ala	Ala	Glu	Leu	Pro	Val	Asp	Ile
65					70					75				80	
Glu	Arg	Arg	Ile	Arg	Pro	Ile	Glu	Gln	Gln	Val	His	His	Ile	Ala	Asp
			85					90					95		
Ala	Leu	Glu	Ala	Leu	Glu	Thr	Ala	Ala	Ala	Ala	Ala	Glu	Glu	Ala	Asp
			100					105					110		
Ala	Ala	Arg	Asp	Ala	Glu	Ala	Arg	Gly	Glu	Gly	Ala	Ala	Asp	Gly	Ala
		115					120					125			
Ala	Pro	Ser	Pro	Thr	Ala	Gly	Pro	Ala	Ala	Ala	Glu	Met	Glu	Val	Gln
	130					135					140				
Ile	Val	Arg	Asn	Asp	Pro	Pro	Leu	Arg	Tyr	Asp	Thr	Asn	Leu	Pro	Val
145				150					155					160	
Asp	Leu	Leu	His	Met	Val	Tyr	Ala	Gly	Arg	Gly	Ala	Ala	Gly	Ser	Ser
			165					170					175		
Gly	Val	Val	Phe	Gly	Thr	Trp	Tyr	Arg	Thr	Ile	Gln	Glu	Arg	Thr	Ile
		180						185					190		
Ala	Asp	Phe	Pro	Leu	Thr	Thr	Arg	Ser	Ala	Asp	Phe	Arg	Asp	Gly	Arg
		195					200					205			
Met	Ser	Lys	Thr	Phe	Met	Thr	Ala	Leu	Val	Leu	Ser	Leu	Gln	Ser	Cys
	210					215					220				
Gly	Arg	Leu	Tyr	Val	Gly	Gln	Arg	His	Tyr	Ser	Ala	Phe	Glu	Cys	Ala
225				230					235					240	
Val	Leu	Cys	Leu	Tyr	Leu	Leu	Tyr	Arg	Thr	Thr	His	Glu	Ser	Ser	Pro
			245						250				255		
Asp	Arg	Asp	Arg	Ala	Pro	Val	Ala	Phe	Gly	Asp	Leu	Leu	Ala	Arg	Leu
		260						265					270		
Pro	Arg	Tyr	Leu	Ala	Arg	Leu	Ala	Ala	Val	Ile	Gly	Asp	Glu	Ser	Gly
		275					280					285			
Arg	Pro	Gln	Tyr	Arg	Tyr	Arg	Asp	Asp	Lys	Leu	Pro	Lys	Ala	Gln	Phe
	290					295					300				
Ala	Ala	Ala	Gly	Gly	Arg	Tyr	Glu	His	Gly	Ala	Leu	Ala	Thr	His	Val
305				310					315					320	
Val	Ile	Ala	Thr	Leu	Val	Arg	His	Gly	Val	Leu	Pro	Ala	Ala	Pro	Gly
			325					330					335		
Asp	Val	Pro	Arg	Asp	Thr	Ser	Thr	Arg	Val	Asn	Pro	Asp	Asp	Val	Ala
		340						345					350		
His	Arg	Asp	Asp	Val	Asn	Arg	Ala	Ala	Ala	Ala	Phe	Leu	Ala	Arg	Gly
		355					360					365			
His	Asn	Leu	Phe	Leu	Trp	Glu	Asp	Gln	Thr	Leu	Leu	Arg	Ala	Thr	Ala
	370					375					380				
Asn	Thr	Ile	Thr	Ala	Leu	Ala	Val	Leu	Arg	Arg	Leu	Leu	Ala	Asn	Gly
385				390					395					400	
Asn	Val	Tyr	Ala	Asp	Arg	Leu	Asp	Asn	Arg	Leu	Gln	Leu	Gly	Met	Leu
		405						410					415		
Ile	Pro	Gly	Ala	Val	Pro	Ala	Glu	Ala	Ile	Ala	Arg	Gly	Ala	Ser	Gly
		420					425						430		
Leu	Asp	Ser	Gly	Ala	Ile	Lys	Ser	Gly	Asp	Asn	Asn	Leu	Glu	Ala	Leu
	435					440						445			
Cys	Val	Asn	Tyr	Val	Leu	Pro	Leu	Tyr	Gln	Ala	Asp	Pro	Thr	Val	Glu
	450					455					460				
Leu	Thr	Gln	Leu	Phe	Pro	Gly	Leu	Ala	Ala	Leu	Cys	Leu	Asp	Ala	Gln
465				470					475					480	
Ala	Gly	Arg	Pro	Leu	Ala	Ser	Thr	Arg	Arg	Val	Val	Asp	Met	Ser	Ser
			485						490					495	
Gly	Ala	Arg	Gln	Ala	Ala	Leu	Val	Arg	Leu	Thr	Ala	Leu	Glu	Leu	Ile
			500					505					510		

Asn Arg Thr Arg Thr Asn Thr Thr Pro Val Gly Glu Ile Ile Asn Ala
 515 520 525
 His Asp Ala Leu Gly Ile Gln Tyr Glu Gln Gly Pro Gly Leu Leu Ala
 530 535 540
 Gln Gln Ala Arg Ile Gly Leu Ala Ser Asn Thr Lys Arg Phe Ala Thr
 545 550 555 560
 Phe Asn Val Gly Ser Asp Tyr Asp Leu Leu Tyr Phe Leu Cys Leu Gly
 565 570 575
 Phe Ile Pro Gln Tyr Leu Ser Val Ala
 580 585

<210> 9

<211> 637

<212> PRT

<213> Herpes Simplex Virus 2

<400> 9

Met Ala Ser Ala Glu Met Arg Glu Arg Leu Glu Ala Pro Leu Pro Asp
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 Arg Ala Val Pro Ile Tyr Val Ala Gly Phe Leu Ala Leu Tyr Asp Ser
 20 25 30
 Gly Asp Pro Gly Glu Leu Ala Leu Asp Pro Asp Thr Val Arg Ala Ala
 35 40 45
 Leu Pro Pro Glu Asn Pro Leu Pro Ile Asn Val Asp His Arg Ala Arg
 50 55 60
 Cys Glu Val Gly Arg Val Leu Ala Val Val Asn Asp Pro Arg Gly Pro
 65 70 75 80
 Phe Phe Val Gly Leu Ile Ala Cys Val Gln Leu Glu Arg Val Leu Glu
 85 90 95
 Thr Ala Ala Ser Ala Ala Ile Phe Glu Arg Arg Gly Pro Ala Leu Ser
 100 105 110
 Arg Glu Glu Arg Leu Leu Tyr Leu Ile Thr Asn Tyr Leu Pro Ser Val
 115 120 125
 Ser Leu Ser Thr Lys Arg Arg Gly Asp Glu Val Pro Pro Asp Arg Thr
 130 135 140
 Leu Phe Ala His Val Ala Leu Cys Ala Ile Gly Arg Arg Leu Gly Thr
 145 150 155 160
 Ile Val Thr Tyr Asp Thr Ser Leu Asp Ala Ala Ile Ala Pro Phe Arg
 165 170 175
 His Leu Asp Pro Ala Thr Arg Glu Gly Val Arg Arg Glu Ala Ala Glu
 180 185 190
 Ala Glu Leu Ala Leu Ala Gly Arg Thr Trp Ala Pro Gly Val Glu Ala
 195 200 205
 Leu Thr His Thr Leu Leu Ser Thr Ala Val Asn Asn Met Met Leu Arg
 210 215 220
 Asp Arg Trp Ser Leu Val Ala Glu Arg Arg Arg Gln Ala Gly Ile Ala
 225 230 235 240
 Gly His Thr Tyr Leu Gln Ala Ser Glu Lys Phe Lys Ile Trp Gly Ala
 245 250 255
 Glu Ser Ala Pro Ala Pro Glu Arg Gly Tyr Lys Thr Gly Ala Pro Gly
 260 265 270
 Ala Met Asp Thr Ser Pro Ala Ala Ser Val Pro Ala Pro Gln Val Ala
 275 280 285
 Val Arg Ala Arg Gln Val Ala Ser Ser Ser Ser Ser Ser Phe Pro
 290 295 300
 Ala Pro Ala Asp Met Asn Pro Val Ser Ala Ser Gly Ala Pro Ala Pro
 305 310 315 320
 Pro Pro Pro Gly Asp Gly Ser Tyr Leu Trp Ile Pro Ala Ser His Tyr
 325 330 335
 Asn Gln Leu Val Thr Gly Gln Ser Ala Pro Arg His Pro Pro Leu Thr
 340 345 350
 Ala Cys Gly Leu Pro Ala Ala Gly Thr Val Ala Tyr Gly His Pro Gly
 355 360 365

Ala	Gly	Pro	Ser	Pro	His	Tyr	Pro	Pro	Pro	Pro	Ala	His	Pro	Tyr	Pro
370						375					380				
Gly	Met	Leu	Phe	Ala	Gly	Pro	Ser	Pro	Leu	Glu	Ala	Gln	Ile	Ala	Ala
385					390					395					400
Leu	Val	Gly	Ala	Ile	Ala	Ala	Asp	Arg	Gln	Ala	Gly	Gly	Leu	Pro	Ala
				405					410						415
Ala	Ala	Gly	Asp	His	Gly	Ile	Arg	Gly	Ser	Ala	Lys	Arg	Arg	Arg	His
			420					425						430	
Glu	Val	Glu	Gln	Pro	Glu	Tyr	Asp	Cys	Gly	Arg	Asp	Glu	Pro	Asp	Arg
		435					440					445			
Asp	Phe	Pro	Tyr	Tyr	Pro	Gly	Glu	Ala	Arg	Pro	Glu	Pro	Arg	Pro	Val
	450					455					460				
Asp	Ser	Arg	Arg	Ala	Ala	Arg	Gln	Ala	Ser	Gly	Pro	His	Glu	Thr	Ile
465				470						475					480
Thr	Ala	Leu	Val	Gly	Ala	Val	Thr	Ser	Leu	Gln	Gln	Glu	Leu	Ala	His
			485						490						495
Met	Arg	Ala	Arg	Thr	His	Ala	Pro	Tyr	Gly	Pro	Tyr	Pro	Pro	Val	Gly
			500					505					510		
Pro	Tyr	His	His	Pro	His	Ala	Asp	Thr	Glu	Thr	Pro	Ala	Gln	Pro	Pro
		515					520					525			
Arg	Tyr	Pro	Ala	Lys	Ala	Val	Tyr	Leu	Pro	Pro	Pro	His	Ile	Ala	Pro
	530					535					540				
Pro	Gly	Pro	Pro	Leu	Ser	Gly	Ala	Val	Pro	Pro	Pro	Ser	Tyr	Pro	Pro
545				550						555					560
Val	Ala	Val	Thr	Pro	Gly	Pro	Ala	Pro	Pro	Leu	His	Gln	Pro	Ser	Pro
			565						570						575
Ala	His	Ala	His	Pro	Pro	Pro	Pro	Pro	Pro	Gly	Pro	Thr	Pro	Pro	Pro
			580					585					590		
Ala	Ala	Ser	Leu	Pro	Gln	Pro	Glu	Ala	Pro	Gly	Ala	Glu	Ala	Gly	Ala
		595					600					605			
Leu	Val	Asn	Ala	Ser	Ser	Ala	Ala	His	Val	Asn	Val	Asp	Thr	Ala	Arg
	610					615				620					
Ala	Ala	Asp	Leu	Phe	Val	Ser	Gln	Met	Met	Gly	Ser	Arg			
625					630					635					

<210> 10

<211> 722

<212> PRT

<213> Herpes Simplex Virus 2

<400> 10

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Leu	Thr	Pro	Ala	Asn	Leu	Ile	Arg	Gly	Ala	Asn	Ala	Gly	Val	Pro	Glu
			20					25					30		
Arg	Arg	Ile	Phe	Ala	Gly	Cys	Leu	Pro	Thr	Pro	Glu	Gly	Leu	Leu	
		35				40					45				
Ser	Ala	Ala	Val	Gly	Val	Leu	Arg	Gln	Arg	Ala	Asp	Asp	Leu	Gln	Pro
	50					55					60				
Ala	Phe	Leu	Thr	Gly	Ala	Asp	Arg	Ser	Val	Arg	Leu	Ala	Ala	Arg	His
65				70					75						80
His	Asn	Thr	Val	Pro	Glu	Ser	Leu	Ile	Val	Asp	Gly	Leu	Ala	Ser	Asp
			85						90					95	
Pro	His	Tyr	Asp	Tyr	Ile	Arg	His	Tyr	Ala	Ser	Ala	Ala	Lys	Gln	Ala
		100						105					110		
Leu	Gly	Glu	Val	Glu	Leu	Ser	Gly	Gly	Gln	Leu	Ser	Arg	Ala	Ile	Leu
		115					120					125			
Ala	Gln	Tyr	Trp	Lys	Tyr	Leu	Gln	Thr	Val	Val	Pro	Ser	Gly	Leu	Asp
	130					135					140				
Ile	Pro	Asp	Asp	Pro	Ala	Gly	Asp	Cys	Asp	Pro	Ser	Leu	His	Val	Leu
145				150						155					160
Leu	Arg	Pro	Thr	Leu	Leu	Pro	Lys	Leu	Leu	Val	Arg	Ala	Pro	Phe	Lys
			165						170						175

Ser	Gly	Ala	Ala	Ala	Ala	Lys	Tyr	Ala	Ala	Ala	Val	Ala	Gly	Leu	Arg	180	185	190
Asp	Ala	Ala	His	Arg	Leu	Gln	Gln	Tyr	Met	Phe	Phe	Met	Arg	Pro	Ala	195	200	205
Asp	Pro	Ser	Arg	Pro	Ser	Thr	Asp	Thr	Ala	Leu	Arg	Leu	Ser	Glu	Leu	210	215	220
Leu	Ala	Tyr	Val	Ser	Val	Leu	Tyr	His	Trp	Ala	Ser	Trp	Met	Leu	Trp	225	230	235
Thr	Ala	Asp	Lys	Tyr	Val	Cys	Arg	Arg	Leu	Gly	Pro	Ala	Asp	Arg	Arg	245	250	255
Phe	Val	Ala	Leu	Ser	Gly	Ser	Leu	Glu	Ala	Pro	Ala	Glu	Thr	Phe	Ala	260	265	270
Arg	His	Leu	Asp	Arg	Gly	Pro	Ser	Gly	Thr	Thr	Gly	Ser	Met	Gln	Cys	275	280	285
Met	Ala	Leu	Arg	Ala	Ala	Val	Ser	Asp	Val	Leu	Gly	His	Leu	Thr	Arg	290	295	300
Leu	Ala	His	Leu	Trp	Glu	Thr	Gly	Lys	Arg	Ser	Gly	Gly	Thr	Tyr	Gly	305	310	315
Ile	Val	Asp	Ala	Ile	Val	Ser	Thr	Val	Glu	Val	Leu	Ser	Ile	Val	His	325	330	335
His	His	Ala	Gln	Tyr	Ile	Ile	Asn	Ala	Thr	Leu	Thr	Gly	Tyr	Val	Val	340	345	350
Trp	Ala	Ser	Asp	Ser	Leu	Asn	Asn	Glu	Tyr	Leu	Thr	Ala	Ala	Val	Asp	355	360	365
Ser	Gln	Glu	Arg	Phe	Cys	Arg	Thr	Ala	Ala	Pro	Leu	Phe	Pro	Thr	Met	370	375	380
Thr	Ala	Pro	Ser	Trp	Ala	Arg	Met	Glu	Leu	Ser	Ile	Lys	Ser	Trp	Phe	385	390	395
Gly	Ala	Ala	Leu	Ala	Pro	Asp	Leu	Leu	Arg	Ser	Gly	Thr	Pro	Ser	Pro	405	410	415
His	Tyr	Glu	Ser	Ile	Leu	Arg	Leu	Ala	Ala	Ser	Gly	Pro	Pro	Gly	Gly	420	425	430
Arg	Gly	Ala	Val	Gly	Gly	Ser	Cys	Arg	Asp	Lys	Ile	Gln	Arg	Thr	Arg	435	440	445
Arg	Asp	Asn	Ala	Pro	Pro	Pro	Leu	Pro	Arg	Ala	Arg	Pro	His	Ser	Thr	450	455	460
Pro	Ala	Ala	Pro	Arg	Arg	Cys	Arg	Arg	His	Arg	Glu	Asp	Leu	Pro	Glu	465	470	475
Pro	Pro	His	Val	Asp	Ala	Ala	Asp	Arg	Gly	Pro	Glu	Pro	Cys	Ala	Gly	485	490	495
Arg	Pro	Ala	Thr	Tyr	Tyr	Thr	His	Met	Ala	Gly	Ala	Pro	Pro	Arg	Leu	500	505	510
Pro	Pro	Arg	Asn	Pro	Ala	Pro	Pro	Glu	Gln	Arg	Pro	Ala	Ala	Ala	Ala	515	520	525
Arg	Pro	Leu	Ala	Ala	Gln	Arg	Glu	Ala	Ala	Gly	Val	Tyr	Asp	Ala	Val	530	535	540
Arg	Thr	Trp	Gly	Pro	Asp	Ala	Glu	Ala	Glu	Pro	Asp	Gln	Met	Glu	Asn	545	550	555
Thr	Tyr	Leu	Leu	Pro	Asp	Asp	Asp	Ala	Ala	Met	Pro	Ala	Gly	Val	Gly	565	570	575
Leu	Gly	Ala	Thr	Pro	Ala	Ala	Asp	Thr	Thr	Ala	Ala	Ala	Ala	Trp	Pro	580	585	590
Ala	Glu	Ser	His	Ala	Pro	Arg	Ala	Pro	Ser	Glu	Asp	Ala	Asp	Ser	Ile	595	600	605
Tyr	Glu	Ser	Val	Gly	Glu	Asp	Gly	Gly	Arg	Val	Tyr	Glu	Glu	Ile	Pro	610	615	620
Trp	Val	Arg	Val	Tyr	Glu	Asn	Ile	Cys	Pro	Arg	Arg	Arg	Leu	Ala	Gly	625	630	635
Gly	Ala	Ala	Leu	Pro	Gly	Asp	Ala	Pro	Asp	Ser	Pro	Tyr	Ile	Glu	Ala	645	650	655
Glu	Asn	Pro	Leu	Tyr	Asp	Trp	Gly	Gly	Ser	Ala	Leu	Phe	Ser	Pro	Arg	660	665	670
Arg	Ala	Thr	Arg	Ala	Pro	Asp	Pro	Gly	Leu	Ser	Leu	Ser	Pro	Met	Pro			

675	680	685
Ala Arg Pro Arg Thr Asn	Ala Leu Ala Asn Asp Gly	Pro Thr Asn Val
690	695	700
Ala Ala Leu Ser Ala Leu	Leu Thr Lys Leu Lys Arg Gly	Arg His Gln
705	710	715
Ser His		720

<210> 11
 <211> 393
 <212> PRT
 <213> Herpes Simplex Virus 2

<400> 11

Met Gly Arg Leu Thr Ser Gly Val Gly Thr Ala Ala Leu Leu Val Val	
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20 25 30	
Ser Leu Lys Met Ala Asp Pro Asn Arg Phe Arg Gly Lys Asn Leu Pro	
35 40 45	
Val Leu Asp Gln Leu Thr Asp Pro Pro Gly Val Lys Arg Val Tyr His	
50 55 60	
Ile Gln Pro Ser Leu Glu Asp Pro Phe Gln Pro Ser Ile Pro Ile	
65 70 75 80	
Thr Val Tyr Tyr Ala Val Leu Glu Arg Ala Cys Arg Ser Val Leu Leu	
85 90 95	
His Ala Pro Ser Glu Ala Pro Gln Ile Val Arg Gly Ala Ser Asp Glu	
100 105 110	
Ala Arg Lys His Thr Tyr Asn Leu Thr Ile Ala Trp Tyr Arg Met Gly	
115 120 125	
Asp Asn Cys Ala Ile Pro Ile Thr Val Met Glu Tyr Thr Glu Cys Pro	
130 135 140	
Tyr Asn Lys Ser Leu Gly Val Cys Pro Ile Arg Thr Gln Pro Arg Trp	
145 150 155 160	
Ser Tyr Tyr Asp Ser Phe Ser Ala Val Ser Glu Asp Asn Leu Gly Phe	
165 170 175	
Leu Met His Ala Pro Ala Phe Glu Thr Ala Gly Thr Tyr Leu Arg Leu	
180 185 190	
Val Lys Ile Asn Asp Trp Thr Glu Ile Thr Gln Phe Ile Leu Glu His	
195 200 205	
Arg Ala Arg Ala Ser Cys Lys Tyr Ala Leu Pro Leu Arg Ile Pro Pro	
210 215 220	
Ala Ala Cys Leu Thr Ser Lys Ala Tyr Gln Gln Gly Val Thr Val Asp	
225 230 235 240	
Ser Ile Gly Met Leu Pro Arg Phe Ile Pro Glu Asn Gln Arg Thr Val	
245 250 255	
Ala Leu Tyr Ser Leu Lys Ile Ala Gly Trp His Gly Pro Lys Pro Pro	
260 265 270	
Tyr Thr Ser Thr Leu Leu Pro Pro Glu Leu Ser Asp Thr Thr Asn Ala	
275 280 285	
Thr Gln Pro Glu Leu Val Pro Glu Asp Pro Glu Asp Ser Ala Leu Leu	
290 295 300	
Glu Asp Pro Ala Gly Thr Val Ser Ser Gln Ile Pro Pro Asn Trp His	
305 310 315 320	
Ile Pro Ser Ile Gln Asp Val Ala Pro His His Ala Pro Ala Ala Pro	
325 330 335	
Ser Asn Pro Gly Leu Ile Ile Gly Ala Leu Ala Gly Ser Thr Leu Ala	
340 345 350	
Val Leu Val Ile Gly Gly Ile Ala Phe Trp Val Arg Arg Arg Ala Gln	
355 360 365	
Met Ala Pro Lys Arg Leu Arg Leu Pro His Ile Arg Asp Asp Ala	
370 375 380	
Pro Pro Ser His Gln Pro Leu Phe Tyr	

<210> 12

<211> 545

<212> PRT

<213> Herpes Simplex Virus 2

<400> 12

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Met Ala Arg Gly Ala Gly Leu Val Phe Phe Val Gly Val Trp Val Val
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Ser Cys Leu Ala Ala Ala Pro Arg Thr Ser Trp Lys Arg Val Thr Ser
          20          25          30
Gly Glu Asp Val Val Leu Leu Pro Ala Pro Ala Glu Arg Thr Arg Ala
          35          40          45
His Lys Leu Leu Trp Ala Ala Glu Pro Leu Asp Ala Cys Gly Pro Leu
          50          55          60
Arg Pro Ser Trp Val Ala Leu Trp Pro Pro Arg Arg Val Leu Glu Thr
          65          70          75          80
Val Val Asp Ala Ala Cys Met Arg Ala Pro Glu Pro Leu Ala Ile Ala
          85          90          95
Tyr Ser Pro Pro Phe Pro Ala Gly Asp Glu Gly Leu Tyr Ser Glu Leu
          100          105          110
Ala Trp Arg Asp Arg Val Ala Val Val Asn Glu Ser Leu Val Ile Tyr
          115          120          125
Gly Ala Leu Glu Thr Asp Ser Gly Leu Tyr Thr Leu Ser Val Val Gly
          130          135          140
Leu Ser Asp Glu Ala Arg Gln Val Ala Ser Val Val Leu Val Val Glu
          145          150          155          160
Pro Ala Pro Val Pro Thr Pro Thr Pro Asp Asp Tyr Asp Glu Glu Asp
          165          170          175
Asp Ala Gly Val Thr Asn Ala Arg Arg Ser Ala Phe Pro Pro Gln Pro
          180          185          190
Pro Pro Arg Arg Pro Pro Val Ala Pro Pro Thr His Pro Arg Val Ile
          195          200          205
Pro Glu Val Ser His Val Arg Gly Val Thr Val His Met Glu Thr Leu
          210          215          220
Glu Ala Ile Leu Phe Ala Pro Gly Glu Thr Phe Gly Thr Asn Val Ser
          225          230          235          240
Ile His Ala Ile Ala His Asp Asp Gly Pro Tyr Ala Met Asp Val Val
          245          250          255
Trp Met Arg Phe Asp Val Pro Ser Ser Cys Ala Asp Met Arg Ile Tyr
          260          265          270
Glu Ala Cys Leu Tyr His Pro Gln Leu Pro Glu Cys Leu Ser Pro Ala
          275          280          285
Asp Ala Pro Cys Ala Val Ser Ser Trp Ala Tyr Arg Leu Ala Val Arg
          290          295          300
Ser Tyr Ala Gly Cys Ser Arg Thr Thr Pro Pro Pro Arg Cys Phe Ala
          305          310          315          320
Glu Ala Arg Met Glu Pro Val Pro Gly Leu Ala Trp Leu Ala Ser Thr
          325          330          335
Val Asn Leu Glu Phe Gln His Ala Ser Pro Gln His Ala Gly Leu Tyr
          340          345          350
Leu Cys Val Val Tyr Val Asp Asp His Ile His Ala Trp Gly His Met
          355          360          365
Thr Ile Ser Thr Ala Ala Gln Tyr Arg Asn Ala Val Val Glu Gln His
          370          375          380
Leu Pro Gln Arg Gln Pro Glu Pro Val Glu Pro Thr Arg Pro His Val
          385          390          395          400
Arg Ala Pro His Pro Ala Pro Ser Ala Arg Gly Pro Leu Arg Leu Gly
          405          410          415
Ala Val Leu Gly Ala Ala Leu Leu Leu Ala Ala Leu Gly Leu Ser Ala
          420          425          430
Trp Ala Cys Met Thr Cys Trp Arg Arg Arg Ser Trp Arg Ala Val Lys

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435 440 445
 Ser Arg Ala Ser Ala Thr Gly Pro Thr Tyr Ile Arg Val Ala Asp Ser
 450 455 460
 Glu Leu Tyr Ala Asp Trp Ser Ser Asp Ser Glu Gly Glu Arg Asp Gly
 465 470 475 480
 Ser Leu Trp Gln Asp Pro Pro Glu Arg Pro Asp Ser Pro Ser Thr Asn
 485 490 495
 Gly Ser Gly Phe Glu Ile Leu Ser Pro Thr Ala Pro Ser Val Tyr Pro
 500 505 510
 His Ser Glu Gly Arg Lys Ser Arg Arg Pro Leu Thr Thr Phe Gly Ser
 515 520 525
 Gly Ser Pro Gly Arg Arg His Ser Gln Ala Ser Tyr Pro Ser Val Leu
 530 535 540
 Trp
 545

<210> 13
 <211> 9
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